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Xaver Wirth

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EXAMINER

NGUYEN, XUAN LAN T

ART UNIT

PAPER NUMBER

3657

NOTIFICATION DATE

DELIVERY MODE

08/18/2011

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- Applicant amended claim 1 to include the features of the radial groove extending away from the center of the hub. Hence, claim 1 is no longer generic but is particular to figures 1 and 2. As presented, the combination of claims 1 and 15 shows an embodiment which is non-disclosed in the present application. Claim 15 is not further treated.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 3, 4, 6, 14 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Eaton et al. (3,295,641).

Art Unit: 3657

Re: claim 1, Eaton shows a brake disk for a rail vehicle, as in the present invention, the brake disk comprising: a hub 2, at least one friction ring 4 having a radial groove 5 and fastened by a clamping bolt 11 to the hub, a plurality of sliding elements 6 having a shank and being connected to the hub, the sliding element engaging in the radial groove for anti-rotation locking and centering of the at least one friction ring; and the sliding element extending parallel to an axis of the clamping bolt; wherein each radial groove, starting from a through-hole of the friction ring and through which through-hole the clamping bolt passes, is extended outward away from a center longitudinal axis of the hub, as shown in figure 1.

Re: claims 3, 4, 6, 14 and 16, Eaton shows a though hole, not numbered, in the hub where pin 6 is located; said sliding element is a guide pin with a head in said groove as claimed and said sliding element is a straight pin.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 5, 7-13 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eaton et al. (3,295,641).

Re: claims 5, 7, 17 and 18, the claimed features in claims 5, 7, 17 and 18 are considered to be engineering design choices to fit a certain size and/or shape as

Art Unit: 3657

required in order to meet certain requirements of strength and performance and would have been obvious to one of ordinary skill in the art at the time of the invention to have selected a certain size and/or shape as a routine in the engineering design process.

Re: claims 8 and 9, the different shapes of the sliding element are considered to be obvious variants of the sliding elements and would have been obvious for one of ordinary skills in the art to have selected one of these shaped sliding elements to be used in the disk of Eaton and still achieves the same result of anti-rotation locking and centering of the disk.

Re: claims 10-13, Eaton's disk, as rejected above, shows the sliding element being arranged in a circumference of the hub but lacks the number of sliding elements. The numbers of the sliding elements are considered to be engineering design choices in order to meet certain requirements of strength and performance while provide adequate thermal expansion and would have been obvious to one of ordinary skill in the art at the time of the invention to have selected a certain number of sliding elements as a routine in the engineering design process.

Re: claim 19, Eaton does not show the material of the sliding element. The Examiner takes an official notice that steel is a well known and a standard material for use in pins, bolts, screws, etc. for its strength and durability.

Re: claim 20, Eaton shows a brake disk for a rail vehicle, as in the present invention, the brake disk comprising: a hub 2; at least one friction ring 4 having a plurality of radial grooves 5 and fastened by a clamping bolt 11 to the hub; a plurality of sliding elements 6 having a shank and being connected to the hub, each of the plurality

Art Unit: 3657

of sliding elements engaging in one of the radial grooves for anti-rotation locking and centering of the at least one friction ring, and each of the sliding elements extending parallel to an axis of the clamping bolt; wherein each of the plurality of sliding elements includes a head which is guided in an associated one of the plurality of radial grooves. The different shapes of the sliding element are considered to be obvious variants of the sliding elements and would have been obvious for one of ordinary skills in the art to have selected one of these shaped sliding elements to be used in the disk of Eaton and still achieves the same result of anti-rotation locking and centering of the disk.

### ***Response to Arguments***

7. Applicant's arguments filed 6/3/11 have been fully considered.
  - Applicant's arguments and amendments have been found persuasive and have overcome the indefiniteness rejection. The rejection has been withdrawn.
  - Applicant's arguments and amendments with regards to the rejection based on Eaton have been found non-persuasive. Eaton shows the direction of the radial groove as claimed by Applicant. Eaton shows in figure 1, each groove 6 starts from the inside and extend to the outside, as claimed by Applicant. In figure 3, Eaton also teaches an alternative embodiment wherein the groove 6a also extending in the same direction. The rejection is still deemed proper and is maintained.

Art Unit: 3657

- Applicant's argument about claim 20 has been found non-persuasive. The different shapes of anti-rotating elements are obvious variants as shown in Lehmann et al., Heller, Tickle et al., etc.

### ***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lan Nguyen whose telephone number is (571)272-7121. The examiner can normally be reached on Monday through Friday, 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Siconolfi can be reached on (571) 272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Xuan Lan Nguyen/  
Primary Examiner  
Art Unit 3657